

CLAIMS

1. A method of updating a print driver in a print server comprising the operations of:

gathering printer configuration data from a printer at a printer port;

monitoring the incoming printer configuration data for changes;

recognizing the changes in configuration data; and,

saving the changes in configuration data as summarized data in a spooler registry.

2. The method of claim 1 further comprising the operations of:

waking a server print driver and alerting the server print driver of changes in configuration data to allow conversion of the summarized data to an internal format.

3. The method of claim 2 wherein a printer manager thread of the print server performs the operation of alerting the server printer driver.

4. The method of claim 1 wherein the monitoring operation further comprises:

polling a printer to periodically gather new printer configuration data; and

comparing data gathered in the polling operation with stored printer configuration data.

5. The method of claim 4 wherein the monitoring operation further comprises:

setting flags when the comparing operation determines that the new printer configuration data does not match the stored configuration data; and

waking a print driver to make a configuration change that matches the set flag.

Sub A2 6. The method of claim 2 wherein the waking operation is executed by transmitting a print driver event API defined by a Windows Operating System.

7. A method of updating a print driver in a client device comprising the operations of:

gathering summarized printer data from a printer at a printer port of a print server;

monitoring the incoming printer configuration data at the print server for changes in the configuration data; and,

updating a print server registry of the print server when a change in summarized configuration data occurs.

Sub A3 8. The method of claim 7 wherein a Windows NT client directly retrieves summarized printer data from the print server registry.

9. The method of claim 7 wherein a client that maintains a local client registry requests via a pipe server thread the transfer of summarized printer data to the client device.

10. The method of claim 7 further comprising the operation of updating a client device print registry when a change in summarized printer data occurs.

11. The method of claim 7 wherein the transferring operation occurs using a server thread that determines configuration options from the server registry and transfers the configuration options to the client device.

12. The method of claim 11 wherein the transfer of the configuration options occurs using an operating systems object.

13. The method of claim 7 wherein the summarized printer data is printer configuration data.

14. The method of claim 7 wherein the summarized printer data is printer status data.

15. A system to output printed documents comprising:

a printer to output convert electronic signals into a printed document, the printer having a configuration state that corresponds to a particular period in time;

Sub A5
B1 a first client device that receives an input and transmits print signals to define a document to be printed on the printer, the first client including a local print registry that maintains the configuration states of the printer;

a second client device that receives a second input and transmits print signals to define a second document to be printed on the printer; and

a print server coupled to the first client device and the second client device, the print server including a print server registry that maintains the configuration states of the printer.

16. The system of claim 15 wherein data in the print server registry is regularly transferred to the local registry of the first client and a second local registry of the second client.

17. The system of claim 15 wherein the transfers occur when polling of the first client and polling by the second client determines that a change in configuration states of the printer has occurred.

Sub A5 18. The system of claim 15 wherein the print server runs software that conforms to the Windows operating system defined by Microsoft and uses a pipe server thread that transfer the changes in configuration states from the printer to the client device.

19. The system of claim 15 wherein software running on the print server further comprises:

a first code section that periodically polls the printer and compares results from the poll to the server registry to determine changes in configuration states.

20. The system of claim 19 wherein the software includes a second code section that transmits the changes in configuration states to the first client device and the second client device.

SulAG 21. The system of claim 15 wherein the print server operates a Windows NT operating system and the second client device operates a Windows operating system that uses the server print registry as a local registry.

22. The system of claim 15 wherein the print server includes a driver that receives notice of changes in printer configuration states and updates the print server registry.

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